DEPARTMENT of ENVIRONMENTAL SERVICES Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: GOOSE POND	Lake Area (ha):	4.82
Town: ALEXANDRIA	Maximum depth (m):	7.1
County: Grafton	Mean depth (m):	3.3
River Basin: Merrimack	Volume (m³):	161000
Latitude: 43°38'27" N	Relative depth:	2.9
Longitude: 71°47'31" W	Shore configuration:	1.67
Elevation (ft): 701	Areal water load (m/yr)	: 4.00
Shore length (m): 1300	Flushing rate (yr^{-1}) :	1.20
Watershed area (ha): 36.2	P retention coeff.:	0.70
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:	25 January 1995	25 August 1994
DOM. PHYTOPLANKTON (% TOTAL) #1	RHIZOSOLENIA 45%	CHRYSOSPHAERELLA 55%
#2	DINOBRYON 40%	ASTERIONELLA 20%
#3	ASTERIONELLA 10%	
PHYTOPLANKTON ABUNDANCE (units/mL)		
CHLOROPHYLL-A (µg/L)		6.00
DOM. ZOOPLANKTON (% TOTAL) #1	LRG GRN RND CILIATE 31%	NAUPLIUS LARVA 36%
#2	TINTINNIDAE CILIATE 26%	CYCLOPOID COPEPOD 16%
#3	KERATELLA 26%	GASTROPUS 14%
ROTIFERS/LITER	79	158
MICROCRUSTACEA/LITER	2	207
ZOOPLANKTON ABUNDANCE (#/L)	205	371
VASCULAR PLANT ABUNDANCE		Abundant
SECCHI DISK TRANSPARENCY (m)		4.1
BOTTOM DISSOLVED OXYGEN (mg/L)	9.7	0.4
BACTERIA (E. coli, #/100 ml) #1		< 1
#2		< 1
#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 5.4 Hypolimnion volume (m^3) : None Anoxic volume (m^3) : 2

250

CHEMICAL: Lake: GOOSE POND Town: ALEXANDRIA					
	25 January 1995		25 August 1994		
DEPTH (m)	2.5	4.5	2.0		6.0
pH (units)	6.0	5.9	6.3		5.8
A.N.C. (Alkalinity)	4.1	3.4	1.8	7000	3.0
NITRATE NITROGEN	0.05	< 0.10	< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.37	0.30	0.31		0.14
TOTAL PHOSPHORUS	0.015	0.009	0.013		0.020
CONDUCTIVITY (µmhos/cm)	19.0	19.4	19.1		21.9
APPARENT COLOR (cpu)	12	12	20		30
MAGNESIUM			0.34		
CALCIUM			1.4		
SODIUM			0.8		
POTASSIUM			0.36		
CHLORIDE	< 2	< 2	< 2		< 2
SULFATE	5	4	4		4
TN : TP	28	33	24		7
CALCITE SATURATION INDEX			4.6		

All results in mg/L unless indicated otherwise

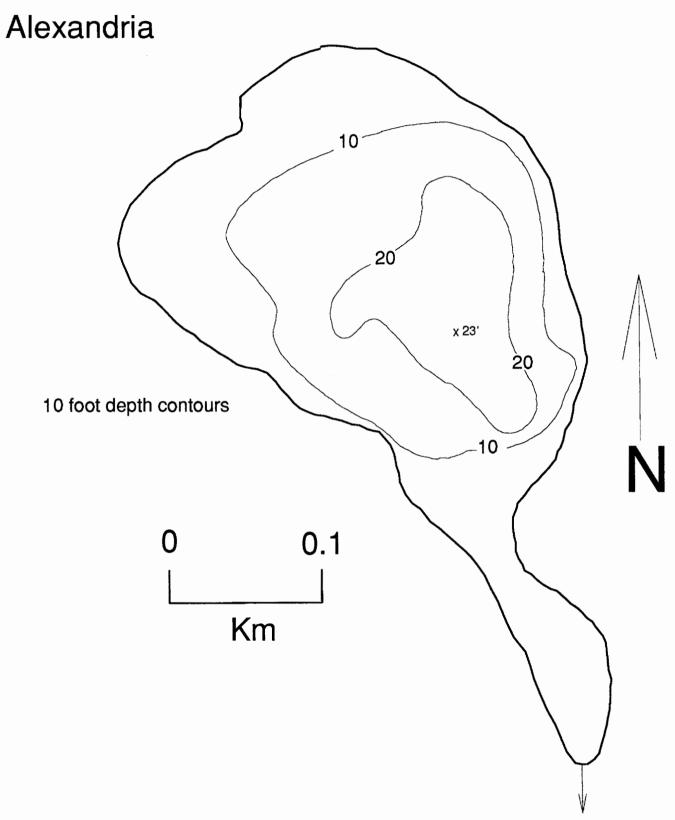
TROPHIC CLASSIFICATION: 1994

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	2	5	1	8	Meso.

COMMENTS:

- This is a small, undeveloped pond located adjacent to Newfound Lake and accessible by a 4-wheel drive road only. No launch site was present; the boat was carried about 100 yards to the pond.
- 2. It is a slightly acid, clear-water pond with abundant vascular plant growth.

Goose Pond



FIELD DATA SHEET

LAKE: GOOSE POND

DATE: 08/25/94

TOWN: ALEXANDRIA

WEATHER: SUNNY & CLEAR

DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION
0.1	22.0	8.5	96 %
1.0	21.5	8.5	94 %
2.0	21.0	8.4	94 %
3.0	21.0	8.4	94 %
 4.0	21.0	7.9	97 %
5.0	19.0	6.9	73 %
6.0	15.0	4.0	40 %
7.0	13.0	0.4	3 %
 		1177	

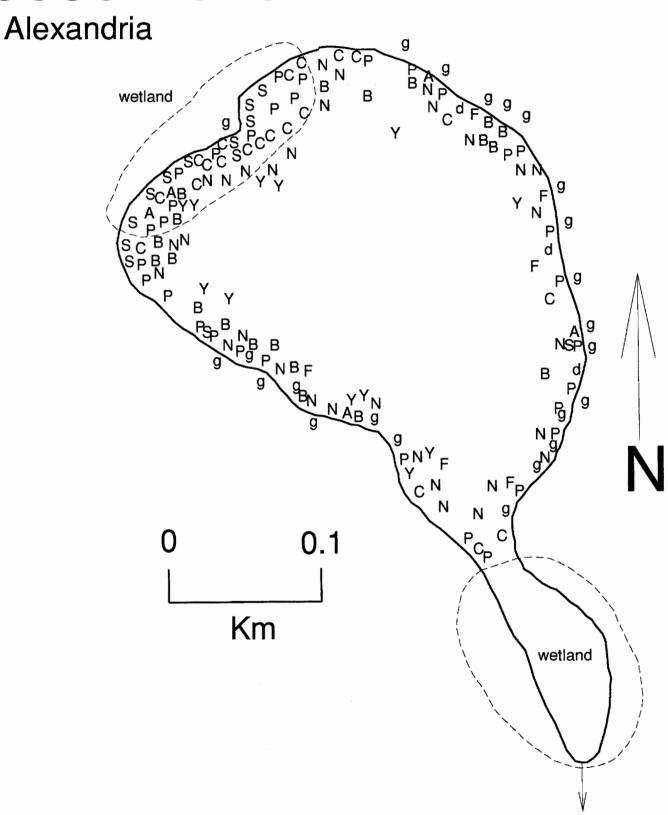
SECCHI DISK (m): 4.1 COMMENTS:

BOTTOM DEPTH (m): 7.1

TIME: 1245

*Dissolved oxygen values are in mg/L

Goose Pond



AQUATIC PLANT SURVEY

LAKE: GOOSE POND		TOWN: ALEXANDRIA	DATE: 08/25/94	
Vorr	PLANT	NAME	ABUNDANCE	
Кеу	GENERIC	COMMON	ABONDANCE	
บ	Utricularia	Bladderwort	Abundant	
P	Pontederia cordata	Pickerelweed	Scat/Common	
N	Nymphaea	White water lily	Common	
В	Brasenia schreberi	Water shield	Scattered	
S	Sparganium	Bur reed	Scattered	
х		Sterile thread-like leaf	Common/Abun	
Y	Nuphar	Yellow water lily	Sparse	
g	Myrica gale	Sweet gale	Scat/Common	
С	Cyperaceae	non-flowering sedge	Sparse	
F	Nymphoides cordatum	Floating heart	Sparse	
d	Dulichium arundinaceum	Three-way sedge	Sparse	
A	Sagittaria	Arrowhead	Sparse	

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

- 1. Bladderwort was abundant throughout the pond, especially along the northern and eastern shorelines. Sterile thread-like leaves were abundant over the entire visible bottom. Neither of the above two plants are depicted on the map because their abundance would mask the presence of the remaining plants.
- 2. Wetlands were present at both the northern and southern ends of the pond.